EXHIBIT A

LISTING OF ALL CLAIMS AND AMENDMENTS

(12-21-2005)

Amendments to the Claims

Claim 1 (currently amended)

1.   A system for transferring a hardware independent service request between a client application and <u>at least one of a plurality of</u> a-supported motion control system-systems using a communications network, comprising:

a client build module for building a service request envelope for containing the

hardware independent service request, where

the hardware independent service request is associated with a service

performed by the motion control system, and

the client build module transmits the service request envelope across the

communications network;

a service request format module for extracting the hardware independent service

request from the service request envelope, converting the hardware

independent service request into a hardware independent service request

method, and invoking the hardware independent service request method;

wherein

the motion control system comprises a motion services module that converts the

hardware independent service request method into a-<u>at least one</u>

hardware dependent motion command<u>, where a format of the at least one</u>

<u>hardware dependent motion command is determined based on at least</u>

<u>one motion control system selected from the plurality of supported motion</u>

<u>control systems</u>; and

the motion control system operates in response to the hardware dependent

motion command to perform the service associated with the service

request.

Claim 2 (previously presented)

2. A system as recited in claim 1, in which the service request format module receives a return value from the motion control system in response to the service request, builds a response envelope containing the return value, and transmits the response envelope to the client application.

Claim 3 (previously presented)

3. A system as recited in claim 1, in which the service request format module invokes the service request method on the motion control system across a communications network.

Claim 4 (previously presented)

4. A system as recited in claim 1, in which the service request format module invokes the service request method on the motion control system across a process boundary.

Claim 5 (previously presented)

5. A system as recited in claim 1, in which the service request format module invokes the service request method on the motion control system within a single process.

Claim 6 (previously presented)

6. A system as recited in claim 1, further comprising a packaging module that converts the service request into a service request method.

Claim 7 (previously presented)

7. A system as recited in claim 1, further comprising a data format module that converts service request data between a first data format associated with the communications network and a second data format associated with the motion control system.

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Claim 8 (previously presented)

8.   A system as recited in claim 1, further comprising a method discovery module for determining a set of services supported by the motion control system.

Claim 9 (previously presented)

9.   A system as recited in claim 1, further comprising a data management module between the client build module and the service request format module, where the data management module manages service requests.

Claim 10 (previously presented)

10.   A system as recited in claim 9, in which the data management module further routes service requests to a database for persistent storage.

Claim 11 (previously presented)

11.   A system as recited in claim 10, further comprising a data caching module for processing data stored in the database.

Claim 12 (previously presented)

12.   A system as recited in claim 7, further comprising:

a data management module between the client build module and the service request format module, where the data management module manages service requests;

a database for persistently storing services requests; and

a data caching module for processing data stored in the database.

Claim 13 (new)

13.   A system for transferring a hardware independent service request between a client application and at least one of a plurality of supported motion control systems using a communications network, comprising:

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a client build module for building a service request envelope for containing the hardware independent service request, where

the hardware independent service request is associated with a service performed by the motion control system, and

the client build module transmits the service request envelope across the communications network;

a service request format module for extracting the hardware independent service request from the service request envelope, converting the hardware independent service request into a hardware independent service request method, and invoking the hardware independent service request method; wherein

the motion control system comprises a motion services module that converts the hardware independent service request method into at least one hardware dependent motion command, where the hardware independent service request method conforms to a programming interface common to the supported motion control systems; and

the motion control system operates in response to the hardware dependent motion command to perform the service associated with the service request.

Claim 14 (new)

14.   A system as recited in claim 13, in which the service request format module receives a return value from the motion control system in response to the service request, builds a response envelope containing the return value, and transmits the response envelope to the client application.

Claim 15 (new)

15.   A system as recited in claim 13, in which the service request format module invokes the service request method on the motion control system across a communications network.

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Claim 16 (new)

16.   A system as recited in claim 13, in which the service request format module invokes the service request method on the motion control system across a process boundary.

Claim 17 (new)

17.   A system as recited in claim 13, in which the service request format module invokes the service request method on the motion control system within a single process.

Claim 18 (new)

18.   A system as recited in claim 13, further comprising a packaging module that converts the service request into a service request method.

Claim 19 (new)

19.   A system as recited in claim 13, further comprising a data format module that converts service request data between a first data format associated with the communications network and a second data format associated with the motion control system.

Claim 20 (new)

20.   A system as recited in claim 13, further comprising a method discovery module for determining a set of services supported by the motion control system.

Claim 21 (new)

21.   A system as recited in claim 13, further comprising a data management module between the client build module and the service request format module, where the data management module manages service requests.

Claim 22 (new)

22.   A system as recited in claim 21, in which the data management module further routes service requests to a database for persistent storage.

Claim 23 (new)

23.   A system as recited in claim 22, further comprising a data caching module for processing data stored in the database.

Claim 24 (new)

24.   A system as recited in claim 19, further comprising:

a data management module between the client build module and the service request format module, where the data management module manages service requests;

a database for persistently storing services requests; and

a data caching module for processing data stored in the database.